PHILMONT MOBILE RADIO CLUB

W3RQZ • W3TKQ • W3QV

BLURB

March 1990

SPECIAL SERVICE CLUB

THE BLURB

A Publication of

THE PHIL-MONT MOBILE RADIO CLUB, INC.

2113 EDGEHILL DRIVE, FURLONG, PA 18925

FIRST CLASS MAIL

VIRGINIA J. HARING W3IIN

2113 EDGEHILL DRIVE

FURLONG PA 18925

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is published monthly by, and for, the members of The PHIL-MONT MOBILE RADIO CLUB, INC. whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. Copying and quoting is permitted with a credit line. We gladly exchange publications with other amateur radio clubs; requests should be sent to the Editor. BLURB subscriptions are available to non-members for $6.50 addressed to the Treasurer. The club meets at 8 PM on the first non-holiday Monday of every month at The Franklin Institute, 20th Street and the Benjamin Franklin Parkway, Philadelphia. Use the side entrance.

ALL VISITORS ARE WELCOME!

Amateur Radio License Examinations - every meeting night at 6:30 PM-SHARP!

CLUB INFORMATION

- 24 Hour Information Number at W3TKQ -**(215) 448-1139**
Repeater frequency: 147.03 MHz - Simplex frequency: 147.51 MHz
Mailing Address: P.O. Box 88, Abington, PA 19001

STATIONS

W3QV - 147.03 MHz. Repeater - 8200 Ridge Avenue, Philadelphia, PA - Trustee W3BBB
W3RQZ - 1176 Old York Road, Abington, PA - Trustee W3VVS
W3TKQ - The Franklin Institute, Philadelphia, PA - Trustee W3PWG
W3TKQ Operators: WA3AAL, Fred; N3ABS, John; K3TEF, Frank; KA3PJC, Jack; W3PWG, Rollie
ALL LICENSED AMATEURS ARE WELCOME TO OPERATE W3TKQ.

OFFICERS

PRESIDENT: W3UY, Larry Clifford, 951 Surrey Drive, Blue Bell, PA 19422
VICE PRESIDENT: N3FVI, Bill Popovic, 343 Lemonte Street, Philadelphia, PA 19103
SECRETARY: N3GLH, Brad Swanson, 517 Cresheim Valley Road, Wyndmoor, PA 19118
TREASURER: KB3IV, Ed Masarsky, 15 Poe Avenue, Wyncote, PA 19095

DIRECTORS

W3BBB (90); K3GBA (A); AK2I (91); W3IIM (A); W3IIN (A); K3KUD (91); W3LKI (90)

COMMITTEES

Archives:	W3IIN	Membership:	W3IIN	Repeater:	W3BBB
Awards:	------	MO-COM 5:	N3DHI	Special Events:	N3FVI
BLURB:	W3IIM	Net Control:	WB3CMM	TVI	WA3AUN
Budget /Audit:	W3IIN	Program:	N3FVI	VE Program:	ND3Q
Directory:	WB3KOJ	Publicity:	N3EAY	W3TKQ:	W3PWG
DX:	WA3AUN	Refreshments:	N3FVI	Welcome:	W3VVS

BLURB STAFF

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Assistant Editor/Typist: W3IIN

N3DHI, K3GBA, WB3KOJ

DEADLINE: To be assured of publication in the current month, all copy MUST be in the hands of the Editor at the Bored of Directors' Meeting!

NET SCHEDULE

SUNDAY	09:00	14.237	MHz SSB	"SNOWBIRD NET"
	09:30	147.030	MHz FM	"SUNDAY MORNING 2 METER NET"
	10:00	28.993	MHz SSB	"10-ON-10 NET"
	10:20	3.993	MHz SSB	75 METER NET
TUESDAY	20:00	147.030	MHz FM	CW PRACTICE NET
WEDNESDAY	20:30	147.030	MHz FM	"SWAP 'N SHOP NET"

APPLE BYTES

MARCH BIRTHDAYS

03-AUSTIN K. GUTMAN - W3FOG
-ELAINE SPENCER (XYL W3BBB)
06-MARILYN MILLER (XYL K3KNH)
-LYDIA VOLD (XYL W3SGR)
07-JUNE FAYE (XYL W3RCE)
09-FAYETTE TOREN (XYL W2GMA)
11-GAIL ACKERMAN (XYL WA3AUN)
17-WILLIAM F. BUBECK - W3YHV
18-ROBERT RICKER - N3EAY
21-BENJAMIN ROESHMAN - W3LKI
-PAUL H. TRUEAX - WF2X
22-DEE MOORE - WA2NSA (XYL W2FUW)
24-EDWARD S. McVAUGH - W3LEM
25-PERRY T. BLUM - N3AXJ
-JERRIE HALDEMAN (XYL W3PST)
26-ANNA MADARA (XYL W3PWG)
-CAROL WYATT - N3CQA (XYL AF3F)
27-LILLIAN SHAPIRO (XYL WA3IFQ)
29-TED COATES - KA3TVZ
31-TED J. LADA - N3FTZ

HELP PHIL-MONT

ARE YOU PLANNING TO JOIN ARRL OR RENEW YOUR CURRENT MEMBERSHIP? HELP PHIL-MONT BY JOINING OR RENEWING THROUGH THE CLUB...CONTACT KB3IV FOR THE DETAILS.

UPDATES

ANY ADDRESS, PHONE NUMBER, ARRL AFFILIATION OR LICENCE UPDATES? WANT YOUR BIRTHDAY LISTED? IF SO, PLEASE DROP ME A LINE SO THAT YOUR CORRECT INFORMATION WILL APPEAR IN THE BLURB AND IN THE 1990 CLUB DIRECTORY.

....DE WB3KOJ

THAT'S NICE, but.....

EDITORIAL

I keep hearing that you like the look of the BLURB. That's nice. I appreciate the compliments. Perhaps you haven't noticed that there are very few contributions from members; most of the articles are 'borrowed'.

My thanks to the Mobile Sixers' December newsletter *HETERODYNE* for some very interesting articles. It makes an editor's job much easier to have at his disposal each month many different newsletters. With so few contributions from members, it helps to have so many other interesting articles available for inclusion in the BLURB.

You know, you really don't have to be an accomplished author to help out; just tear-out an article now and then, and send it to me. If you found it interesting, then, it's safe to assume, many of your fellow club members will, too! My greatest fear is that these articles, which we editors 'borrow' from one another, will eventually form a continuous loop, such that all newsletters will print the same articles month after month - a sort of 'letterlock'. That'll serve you right if you never contribute! (On second thought, maybe no one will ever notice!) - W3IIM

License Renewal Information

1) Attach a photocopy, or the original, of your license to the FCC Form 610 (available from ARRL HQ; SASE, please).

2) Mail to FCC, PO Box 1020, Gettysburg, PA 17326. There is no fee.

3) If you file before the license expiration date, you may continue to operate beyond the expiration date and until the new license arrives. After expiration, there is a five-year grace period under which you may still renew without retesting. However, after two years of the grace period has elapsed, you will lose your call sign, and will be assigned a new one. After this five-year grace period is over, you must be reexamined for a new license.

4) Note that 10-year-term licenses, which have been issued to all amateur licensees renewing since January 1984, have only a two-year grace period before both the license and call sign expire.

5) You may apply to have your license renewed at any time during the term of the license. FCC suggests the application be made approximately 90 days before expiration.

6) If you are simply modifying your license (change of address, for example), you must fill out a Form 610. Incidentally, your license will also be renewed automatically for 10 years at this time.

7) If you have any questions or problems, drop a note to the Regulatory Information Department, ARRL HQ.

The "Considerate Operator's Frequency Guide"

Some frequencies that are generally recognized for certain modes or certain activities (all frequencies are in MHz):

1.800- 1.830	CW, RTTY and other narrow-band modes
1.830- 1.840	CW, RTTY and other narrow-band modes; intercontinental QSOs only
1.840- 1.850	CW, SSB, SSTV and other wideband modes; intercontinental QSOs only
1.850- 2.000	CW, phone, SSTV and other wideband modes
3.590	RTTY DX
3.610- 3.630	RTTY
3.790- 3.800	"DX window"
3.845	SSTV
7.040	RTTY DX
7.080- 7.100	RTTY
7.171	SSTV
10.140-10.150	RTTY
14.070-14.0995	RTTY
14.100	NCDXF beacons
14.230	SSTV
14.313	Maritime mobile
18.100-18.110	RTTY
21.070-21.100	RTTY
21.340	SSTV
24.920-24.930	RTTY
28.070-28.150	RTTY
28.190-28.225	Beacons
28.680	SSTV
29.300-29.510	Satellite downlinks
29.520-29.580	Repeater inputs
29.600	FM simplex
29.620-29.680	Repeater outputs

ARRL band plans for bands above 29.300 MHz are shown in the ARRL *Repeater Directory* and *The FCC Rule Book*. For suggested packet frequencies, see p 54, Sep 1987 *QST* and p 51, Mar 1988 *QST*.

AMATEUR LICENSE EXAMS HELD MONTHLY
At
THE FRANKLIN INSTITUTE
For Information Call ND3Q at
(215) 482-0386 or 879-0505
Accessible by the handicapped.

The PREZ SEZ

Larry Clifford, W3UY

The past month of warmer than usual weather brings to mind thoughts of spring yard clean up, new antennae and hamfests. The spring yard clean up is something routine, but sometimes burdensome. The antenna program requires planning and care.

The latter term "care" is so important. Simply put, don't take chances on how you climb poles or towers, or coming even into near contact with power lines. And do be sure that the mechanical way in which you secure your skyhook and beams is sound. For instance, we do not often read of injuries and death sustained during antenna work, nevertheless be careful. Let us not have to say that one has become a silent key, or was seriously or permanently handicapped due to carelessness during antenna work.

Enjoy hamming, and don't let it become a bad memory.

As for hamfests, 'hope you all find the bargains you are looking for. Do not overpay for them, and may they work when you get them home!

MFJ ENTERPRISES, INCORPORATED
P.O. Box 494, Mississippi State, MS 39762
Phone: 601-323-5869 Telex: 53-4590 MFJ STKV

December 4, 1989

Rolland E. Madara, W3PWG
306 N. Lansdowne Ave.
Lansdowne, PA 19050

Dear Sir,

Thank you for your letter of November 28 and the pictures of the Franklin Institute Ham station. It was interesting. MFJ is happy to donate both the 1278 and the 1282 starter kit. Because of the Christmas crunch and the backlog of 1278s, it may take me awhile to send you the donated unit. We are receiving shipments of 1278s regularly each month and I hope to send your unit within the next month, possibly sooner.

On a more personal note, the 1273 Tuning Indicator you ordered is in stock and will be shipped UPS by the end of the week. It will be charged to your VISA as per your instructions and shipped to the Franklin Institute address.

If you have any questions, I can be reached at 601-323-5869 or send me a FAX at 601-323-6551.

Happy Holidays,

Robert G. Fox

Thank You!

Robert G. Fox
Customer Service Manager
MFJ Enterprises, Inc.

* UPDATE *

MAR 5 General Meeting

Mar 14 Directors' Meeting
at N3GLU & KB3IV's

APR 2 General Meeting

Apr 18 Directors' Meeting
at W3UY's

MAY 7 General Meeting

May 16 Directors' Meeting
at AK2I's

JUN 3 General Meeting

Jun 13 Director's Meeting
at Vikye's

CLUB INFORMATION
24 Hour Information Number at
W3TKQ
(215) 448-1139

HAMFESTS

MAR 4 DOVER, PA
York Springfest

MAR 10 ABSECON, NJ
(Sat.) Shore Points ARC's
Springfest '90

MAR 25 LAWRENCEVILLE, NJ
Delaware Valley ARA

MAR 31, TIMONIUM, MD
APR 1 BARC Hamfest

APR 7 LEBANON, PA
(Sat.) Appalachian ARG's
Hamfest & Computer Show

APR 27-29 DAYTON, OH
HamVention

MAY 20 WRIGHTSTOWN, PA
Warminster Hamfest

V.E. TEST LOCATIONS

from EPA FEEDLINE & others

Confirm all information, in advance, with the contact person. Licensed applicants must bring their original license and one photocopy of it. All applicants, including children, must present positive ID. Also bring the original of any Certificate of Successful Completion needed to prove current status. The ARRL VEC's 1990 test fee is $4.95; there is no charge for a Novice test.

BELLMAWR, NJ
Monthly, 3rd Thursday
Bill Helmatag
(609) 546-7710

CENTER CITY
Mar 5, Apr 2
Dusty Rhoads, ND3Q
(215) 482-0386
(215) 879-0505

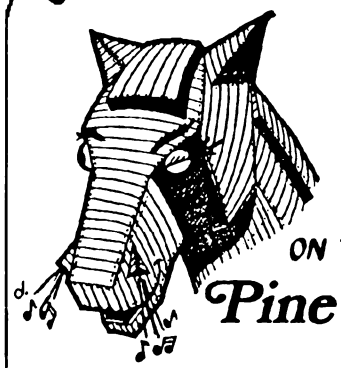
PERKASIE
Monthly, 3rd Monday
Stu Silverstein, K3UEI
(215) 584-0775

BRYN MAWR
Bob Haase, W3SA
(215) 293-1919

LEVITTOWN
Mar 8
Dave Heller, K3TX
(215) 946-1040

HATBORO
Mar 28
Tom Michaud, WA3TQJ
(215) 343-3494

AK2I, and the Society for the Preservation and Encouragement of Barbershop Quartet Singing in America Invite You To.....



be an
EARLY BIRD
and save $1.00

ON THE COST OF TICKETS FOR THE 1990

Pine Barons' Annual Show

APRIL 6, 7, 8, 1990

PENNSAUKEN HIGH SCHOOL - PENNSAUKEN, N.J.

PLEASE PAY PRICES SHOWN ON ORDER FORM

Place your order before March 2, 1990

(All ticket prices will go up $1.00 after that date !!)

1990 SHOW THEME:
"TALE OF TWO TROYS"
OUR FEATURED QUARTETS:
"BROADWAY"
& "HOGAN'S HEROES"

FOR MORE INFORMATION
CALL : JACOB KOVALCHEK
609 / 428-5924

1228 HEARTWOOD DRIVE
CHERRY HILL, N.J. 08003

PLEASE SEND TICKETS TO: _____ (NAME) , _____ (ADDRESS)

MY TICKET ORDER IS :

\#___ FRIDAY EVE., APR. 6 - RESERVED @ $ 9.00
\#___ FRIDAY EVE., APR. 6 - GEN. ADM. @ $ 7.00
\#___ FRIDAY EVE., APR. 6 - SR. CIT. @ $ 6.00
\#___ SATURDAY MAT., APR. 7 - GEN. ADM. @ $7.00
\#___ SATURDAY MAT., APR. 7 - SR. CIT. @ $6.00
SATURDAY EVE., APR. 7 - RESERVED @ $11.00
\#___ SATURDAY EVE., APR. 7 - GEN. ADM. @ $9.00
\#___ SUNDAY MAT., APR. 8 - RESERVED @ $9.00
\#___ SUNDAY MAT., APR. 8 - GEN. ADM. @ $7.00
\#___ SUNDAY MAT., APR. 8 - SR. CIT. @ $6.00

TOTAL ORDER AMOUNT: $_____

MAKE CHECKS PAYABLE TO: CHERRY HILL CHAPTER, S.P.E.B.S.Q.S.A.

PLEASE ENCLOSE A STAMPED, SELF-ADDRESSED ENVELOPE WITH YOUR ORDER

MAIL TICKET ORDER TO THIS ADDRESS

THE FIRST BASEBALL GAME

Baseball seasons and world series' come and go. Dodgers and Giants move to California, Boston Braves to Milwaukee, Senators to Minnesota. New teams are born, leagues enlarge. The game itself today is a science, big business, the national pastime. For contrast, let's hark back to what many consider the "birth" of baseball, a game played in New Jersey.

There is a tablet, at 11th and Hudson Streets in Hoboken, to commemorate the affair. The date was June 19, 1846. The contest between the Knickerbockers and the New Yorkers, from across the Hudson, and you can get full details from the Baseball Hall of Fame at Cooperstown, New York, and in Mr. A. H. Spink's "The National Game".

Today's fans would find it strange. The bat could be most any size or length. The pitchers threw underhand. There were no balls or strikes, and the batter could let 50 perfect pitches go by if he so pleased. Then as now, there were nine on a side, but the 1846 score sheet shows no substitutions, not even when the Knicks were behind 23 to 1. The game ended after four innings, perhaps from exhaustion.

Baseball was strictly amateur until about 1860, when players began sharing nickels and dimes from the gate receipts. The first paid team was the fabulous one from Ohio - the Cincinnati Red Stockings, diamond Grandpappies of today's "Reds". They toured far and wide, meeting all comers for two years without a single defeat.

As we've said, the game now is on toward a science as well as a sport. But if your favorite slugger goes on a hitting spree, reflect that Messrs. Murphy and Case of the New Yorkers each scored four times in those four innings at Hoboken, and sympathize a bit with Mr. Avery of the Knicks who, according to the score sheet, never got a chance at bat.

tnx to W3SGR and "Tales of New Jersey" published by New Jersey Bell Telephone Co.

YOU CAN TALK TO THE FCC

THE FCC PUBLIC-ACCESS INFORMATION SYSTEM

All electronic equipment such as amateur radios, personal computers, microwave ovens, VCRs and cordless phones, sold in the United States, must bear an FCC identification number, because they are considered to be potential generators of radio-frequency. This number identifies which company manufactured the unit. If you have one of these products and can't identify the manufacturer, you can contact the FCC through its public-access system to find out.

There are two ways to get this information: via telephone or via computer and modem by contacting their public-access bulletin board. The FCC prefers to have people use direct computer-to-computer contact.

To contact the FCC bulletin board, you must have a computer and a modem capable of 300 baud or 1200 baud. The number to call, in Maryland (just outside of Washington, DC), is 301-727-1072. Dialing this number should get you in direct contact with the bulletin board. Just follow the instructions; your call will be limited to 15 minutes.

The other method of obtaining this information is to call 301-725-1585, Monday through Thursday between 2:00 PM and 4:30 PM and ask to be connected to the status desk. The individual who answers will relay your question to the bulletin board via a computer terminal, and will then relay back to you the information it provides.

Obviously, if you have a computer with a modem, it makes far more sense to contact the computer directly. You'll cut out the middleman, and, of course, you can call anytime.

tnx DLARC

MINUTES FEBRUARY GENERAL MEETING

The February General Meeting was called to order by N3FVI at 20:25 hours. W3UY was home sick. There were 28 members and 7 guests attending. The guests were Ron Slattery, Matt Clemons, Mike Romano, Vibeke (Vikye) Lise Hopkinson, Mike Funk, N2FUO and N2FFA. N3GLH read the minutes from the January meeting, and KB3IV read the Treasurer's report.

Membership - W3IIN announced that we have three new members. They are N3HIL, WB3KAG and N3DSM.

Net Report - WB3CMM reports that he needs net control operators for all nets, especially the Sunday 2 Meter net. If you would be willing to help out "every other month" please get in touch with him.

VE Report - There were 19 elements given, 15 passed and 4 failed.

New Business - The topic at hand was the BANANA. The banana has been interfering with several repeaters and emergency communications. Everyone must help to control the situation. Please do not speak to, or about, him on the air. In other words folks ignore him and hopefully he will go away.

CLANG CLANG - At 20:48 the meeting was interrupted by the fire alarm sounding. We all had to leave via the stairs (five flights) to the ground level. It turned out to be a trash fire that was extinguished by the time we had reached the ground floor. The meeting reconvened at 21:00.

The meeting was turned over to Chuck Keneagy (N2FUO) from Hamtronics and we learned about some of the newest radio equipment on the market. He brought several radios along and gave a nice demonstration.

The meeting was adjourned at 21:25. Respectfully Submitted, Brad Swanson, N3GLH, Secretary

MINUTES FEBRUARY DIRECTORS' MEETING

The Directors' meeting was held at KA3AMO and N3FTC'S home on February 14 1990. Present were W3UY, KB3IV, AK2I, W3BBB, K3GBA, N3FVI, W3IIM, W3IIN and N3GLH. W3UY called the meeting to order at 20:21 hrs. N3GLH read the minutes from the January Directors' meeting which were approved as read.

KB3IV read the Treasurer's report, and a list of members that hadn't yet paid their dues. W3IIM will attach a yellow reminder sticker to their BLURBS.

New Members - Carolyn Popovic, KA3VLJ, was voted on and was accepted.

Net Report - WB3CMM needs two people to take the 2mtr. net on Sunday morning.

New Business - W3BBB has purchased an overhead transparency projector complete with a whole roll of mylar film. It will be for W3TKQ and our own use. Nothing new with the FCC and TVI. The "Grunge" is still there and makes its presence known from time to time.

The meeting was adjourned at 21:45 and refreshments were enjoyed by all. Respectfully Submitted, Brad Swanson, N3GLH, Secretary

ROY KENWORTHY, W3HNP

Roy died suddenly of a heart attack at about 2 PM on January 30th.

He was born August 12, 1919, had been a member of PMRC since January, 1979, and had recently been a regular net control station for the Sunday Morning 2 meter Net. A licensed amateur since 1935, he was also an active member of Army MARS since mid 1957, serving as net control on their local 2 meter net. He was also a member and cofounder of the Ivyridge Amateur Radio Club, dating back to the mid '50s.

Roy was a lifetime resident of Roxborough, a retired police officer, and had also retired from an R&D position with American Electronic Labs. As an active member of the Masons, he was Past Grand Master of his local lodge.

He is survived by his wife Ruth, and two sons.

THE ORIGIN OF "73"

Louise Ramsey Moreau, W3WRE

The traditional expression "73" goes right back to the beginning of the landline telegraph days. It is found in some of the earliest editions of the numerical codes, each with a different definition, but each with the same idea in mind - it indicated that the end, or signature, was coming up. But there are no data to prove that any of these were used. The first authentic use of 73 is in the publication The National Telegraphic Review and Operators' Guide, first published in April 1857. At that time, 73 meant, "My love to you"! Succeeding issues of this publication continued to use this definition of the term. Curiously enough, some of the other numerals used then had the same definition as they have now, but within a short time, the use of 73 began to change. In the National Telegraph Convention, the numeral was changed from the Valentine-type sentiment to a vague sign of fraternalism. Here, 73 was a greeting, a friendly "word" between operators, and it was so used on all wires. In 1859, the Western Union Company set up the standard "92 Code." A list of numerals from one to 92 was compiled to indicate a series of prepared phrases for use by the operators on the wires. Here, in the 92 Code, 73 changes from a fraternal sign to a very flowery "accept my compliments," which was in keeping with the florid language of that era. Over the years from 1859 to 1900, the many manuals of telegraphy show variations of this meaning. Dodge's The Telegraph Instructor shows it merely as "compliments." The Twentieth Century Manual of Railway and Commercial Telegraphy defines it two ways, one listing as "my compliments to you", but in the glossary of abbreviations it is merely "compliments." Theodore A. Edison's Telegraphy Self-Taught shows a return to "accept my compliments." By 1908, however, a later edition of the Dodge Manual gives us today's definition of "best regards" with a backward look at the older meaning in another part of the work, where it also lists it as "compliments." "Best regards" has remained ever since as the "put-it-down-in-black-and-white" meaning of 73, but it has acquired overtones of much warmer meaning. Today, amateurs use it more in the manner that James Reid had intended that it be used - a "friendly word between operators."

tnx ARRL Operating Manual via The Scuttlebutt (the Olympia Radio Amateur Club's newsletter).

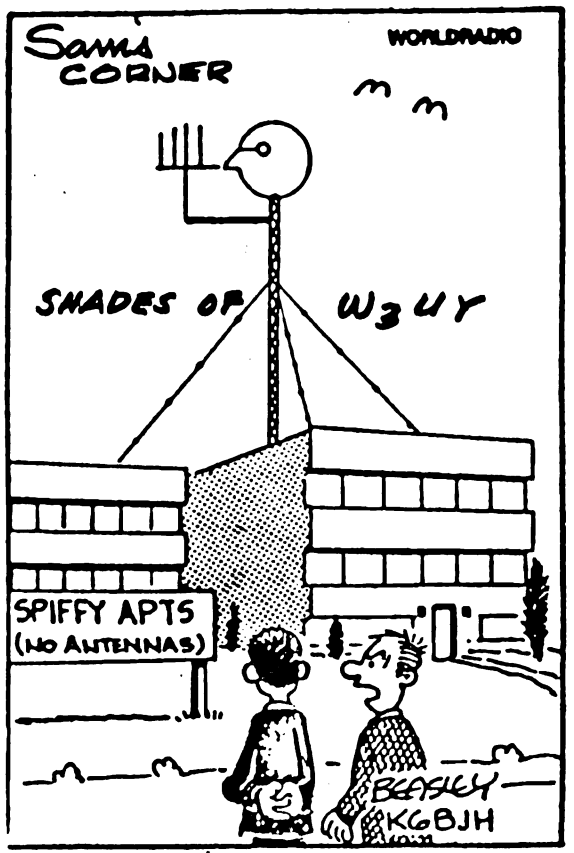
RF MODEMS

RF modems provide a means of relaying digital data between two locations by modulating/demodulating a carrier signal. In this sense they are like the more common modems that interface to telephone networks. For telephone line modems, however, the carrier signal frequency lies within the audio range (<3 kHz) while for RF modems, the carrier signal falls in the RF spectrum, and is typically transmitted via the airways or a broadband coaxial cable similar to that used in CATV networks. RF modem carrier frequencies to over 400 MHz are practical for cable systems, and operation to over 100 MHz is quite common. RF modems offer high data rates and the simultaneous use of many channels (one per RF carrier employed), and are frequently used in local area networks (LANs) and CATV systems.

The maximum data rate, and number of operating channels required, of an RF modem varies with the application. In some cases a single channel (or a transmit/receive channel pair) is sufficient. In other applications a multi-channel modem is required. The term "frequency agile" is used to describe modems that can be programmed to operate on various channels or carrier frequencies.

RF modem designs can employ any one (or variations thereof) of the three modulation methods: Amplitude Modulation (AM), Phase Modulation (PM) and Frequency Modulation (FM). AM receivers or demodulators are susceptible to errors from impulse noise which is prevalent in digital systems. FM and PM are impulse noise immune once the received signal is great enough to cause IF limiting to occur. Even though FM may require slightly wider bandwidths than corresponding AM or PM systems, its advantages frequently make it the modulation of choice. A simple form of frequency modulation occurs when the modulating signal is a binary serial data stream. In this case the frequency of the carrier is made to shift between two values, one occurring when the data is high and the other when the data is low. Such a binary FM system is referred to as a frequency-shift keyed (FSK) system.

tnx N3DHI & RF DESIGN



THANX TO YDS & WORLD RADIO

The Foundation For Amateur Radio

Washington DC

AMATEUR RADIO NEWS RELEASE

For Immediate Release

THE FOUNDATION FOR AMATEUR RADIO, INC., a non-profit organization with headquarters in Washington, D.C., plans to award thirty-three (33) scholarships for the academic year 1990 - 1991 to assist licensed Radio Amateurs. The Foundation, composed of fifty local area Amateur Radio Clubs, fully funds five of these scholarships with the income from grants and its annual Hamfest. It administers, without cost to the donors, seven (7) scholarships for the Quarter Century Wireless Association, three (3) each for the Baltimore, (MD) Amateur Radio Club, the Radio Club of America, and the West Allis Radio Club of Milwaukee, (WI) and two (2) each for the Dade (FL) Radio Club, the Amateur Radio News Service, and the 10-10 International Net. It also administers one (1) each for the Richard G. Chichester Memorial, the Young Ladies' Radio League, the Columbia (MD) Amateur Radio Association, the Frederick (MD) Amateur Radio Club, the Vienna (VA) Wireless Society, the Goddard Amateur Radio Club and the Kevin B. Perdue Memorial.

Licensed Radio Amateurs may compete for these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled in or have been accepted for enrollment at an accredited university, college or technical school. Some of the scholarships require the holding of at least an FCC GENERAL Class license or equivalent. The awards range from $500 to $2000 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs.

Additional information and an application form can be requested by letter or QSL card, postmarked prior to May 31, 1990 from:

FAR Scholarships
6903 Rhode Island Avenue
College Park, MD 20740

The Foundation for Amateur Radio, incorporated in the District of Columbia, is an exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1954. It is devoted exclusively to promoting the interests of Amateur Radio and those scientific, literary and educational pursuits that advance the purpose of the Amateur Radio Service.

IT SEAMS TO ME..

Bob Schmilewske, K3KUD

Just because I once done some of this here editing stuff our present Editor axed me too write another Gest Editorial. Well I say, ain't that something! I gotta let this guy know what I think about that.

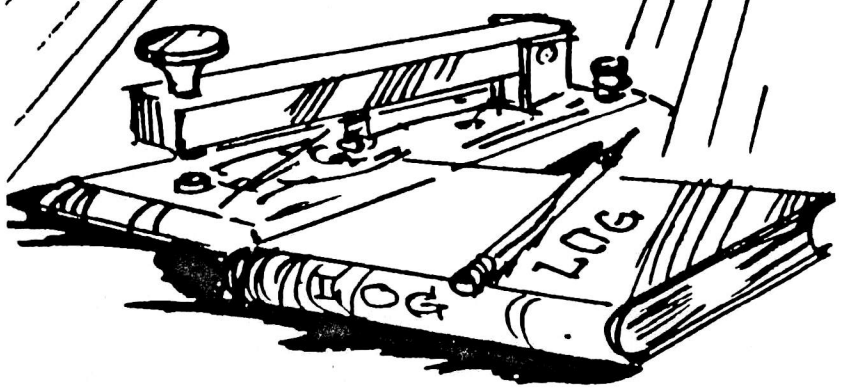
He probly wants me to say that I'm pleesed at the activity on the repeeter and the renewed interest in the teknical part of our hobby. I gess I'm supposed to mention that many of our newer members are actively involved in the operation of the club, administration and teknical, witch is great. He probly would like it if I said that it looks to me as if Philmont ain't just getting older, it's getting better.

Well, I don't know why he picks on me but I got too let him know how I feel about his axing me, so here goes: **Thanks Jack, anytime!**

Hey George, I'm beginning to get worried; do all editors begin to write like you after awhile? -Ed

PHILMONT

Silent Key



W3HNP JAN.30 1990

ROY KENWORTHY

SPECTRUM MANAGEMENT or ABDICATION?

David Sumner, K1ZZ

The Federal Communications Commission has managed to find a way of denying radio amateurs the use of their allocated spectrum without having to go to the trouble of withdrawing the allocation.

It's easy. Simply take a band already allocated to hams, either on an exclusive basis, or shared with other services that are coexisting happily. Then, permit, and even encourage, the manufacture of nonlicensed consumer electronics devices that use the band. After all, hams don't have enough trouble with inadequately protected stereos and VCRs; why not suggest that manufacturers sell consumers wireless stereo speakers and wireless VCRs operating on the very same frequencies being used by their ham neighbors? That should keep those factories in the Far East humming, while creating some juicy neighborhood fracases to enrich the American life-style.

If you're the FCC, you would want a defense against accusations you weren't playing fair. So. you'd have the manufacturers print some technobabble in mouse-size type on the consumer device which means, but doesn't actually say, that if the thing doesn't work because there's a ham next door "that's just too bad" and the consumer should have known better than to buy it in the first place. But you wouldn't want those poor manufacturers to have to actually explain this to their customers before they make a sale; that would distort the Marketplace Forces in whose honor golden calves have been erected all over town. An informed marketplace? That's wimpy textbook stuff. Offer consumers instant gratification; that's what they want.

The real beauty of it is, if anyone tries to drag the FCC into explaining to a specific consumer that a specific ham isn't doing anything wrong just because his new gadget jumps off the table every so often, and that said consumer ought to take said gadget and force-feed it to its purveyor, you can point to your shriveled budget and plead poverty.

"We wish we could help, but we just don't have the resources. Yeah. ain't it awful." And if in a few years Congress finally gets around to telling the FCC to clean up the mess it's made, well, you'll be long gone: that task will fall to the poor suckers who have made the FCC and public service their career, and not just a line on their resumes.

An exaggeration? We wish it were. While we're not suggesting they thought of it quite this way, it is exactly what results from a March 30 FCC action. Among other things, the new Part 15 rules adopted that day create a number of new bands for consumer devices that intentionally radiate signals, including the bands 902-928 MHz, 2,400-2,450 MHz, 5,725-5,875 MHz, and 24.0-24.25 GHz. Check your Part 97, and you'll find that these are all ham bands-including a segment at 24 GHz where the only authorized radiocommunication service is Amateur. But you'd never know this from reading the glowing FCC news release describing the First Report and Order in General Docket 87-389; it doesn't even mention the affected bands! Instead, it talks about "major benefits to the manufacturers of Part 15 devices" (there were probably celebrations all over Tokyo, Seoul, and Taipei) and how the Commission's decision "should also serve the public by enabling new technologies and new equipment categories that satisfy consumer demands to be introduced without the need for Commission rulemaking."

EDMUND MOORE, W2FUW

February 17, 1990

A member of Phil-Mont since February 1960, Ed previously held the call W3EQV when he lived in Lansdowne, PA. He was formerly employed in Quality Assurance at the U.S. Army Signal Supply Agency, and most recently resided in North Port, Florida where he suffered a brief illness prior to his death at the age of 75.

Surviving family members include his wife Dee, WA2NSA, and two sons: Rob, N2RM, of Hammonton, NJ and Richard, N8DM, of Livonia, Michigan.

MOTOROLA, IBM GO LIVE WITH MOBILE DATA NET

ELLIS BOOKER

SCHAUMBURG, Ill.- Motorola, Inc. and IBM went on the air last week, combining their private radio networks, and forming a joint venture that will provide a nationwide commercial data communications system.

The new venture, dubbed Ardis, is designed to give the estimated 10 million "mobile professionals" in the U.S. a way to network on the run.

Scheduled to go on-line in early April, the Ardis network will combine IBM's national private radio system, which Motorola designed and installed in 1983, and Motorola's own shared-use radio data network.

The first customer to test the new service will be New York Life Insurance Co. in New York, which said its agents will now have access to corporate databases and will be able to perform data entry from the field, all without tying up its own clients' phone lines.

James S. Ellis, vice-president of telecommunications at New York Life, is excited about the prospect of "untethering" the company's 11,000 insurance agents, more than 50% of whom already use a personal computer or a laptop, he said.

"In an untethered environment," Ellis said, "applications for a laptop computer could be designed to access a mainframe automatically."

Likewise, Sears, Roebuck and Co. in Chicago said it plans to test the radio network as a means for its field force of 19,000 technicians and 14,000 vehicles to access the company's existing private network, operated by Sears Technology Services, Inc. Ardis executives said other firms will test the network in the coming months.

Until now, IBM's network has been used exclusively by its 16,000 IBM and 2,000 Rolm service personnel, who use a handheld terminal from Motorola to communicate from job sites or dispatch centers. Motorola's network is available to commercial customers - among them, Avis, in Chicago, New York and Los Angeles.

The network will contain more than 1,100 radio base stations and provide service to more than 8,000 cities and towns in 50 states, according to IBM and Motorola, which did not disclose financial details.

Although its base technology is not new, Ardis will bring the untethered networking to a much wider audience.

"Here is a humongous, relatively protocol-independent nationwide network," said Carl Pitasi, vice-president and director of enterprise network strategies at Gartner Group, Inc. in Stamford, Conn. "This is going to be great stuff for smaller companies that want to emulate an Avis or an IBM field service operation."

Pitasi noted that the IBM/Motorola network comes in advance of digital cellular networks, which will do a better job of carrying data than current systems but have yet to be deployed. "I look forward to this as a hybrid using digital cellular and possibly mobile satellite technology in the future," he said.

While radio is a popular medium for voice, the amount of data communications traffic "is very low today, almost unmeasurable if you're talking about two-way interactive data," said Jack Blumenstein, president and chief executive officer of Ardis.

The network will operate a 4.8K bit/sec. However, Ardis executives noted Motorola has built commercial networks that run at 19.2K bit/sec. using the same radio frequency technology, and plans are to upgrade its service to the higher speed as the network is expanded.

While pricing details for the service have yet to be worked out, Blumenstein said there will be a per-packet charge, with volume discounts and off-peak rates. "We're talking about 10 cents per [message] unit," he said, adding that the monthly price for a single user will be in the range of $100 to $150.

tnx COMPUTERWORLD

The bands in question are what are known as "ISM" bands. ISM stands for "Industrial, Scientific, and Medical" applications. In addition to radiocommunication, RF energy has a variety of applications (microwave ovens, for example): by international agreement, some bands have been identified for this use where radiocommunications services have to tolerate the resulting interference. But the International Radio Regulations also say, "Administrations shall take all practicable and necessary steps to ensure that radiation from equipment used for industrial, scientific, and medical applications is minimal..." For hams, there's a fundamental difference between sharing a band with ISM and sharing it with intentionally radiating consumer devices. Your neighbor is never going to know if you're transmitting on the same frequency as his microwave oven, and the ten minutes a day he might use it isn't going to seriously affect, for example, your use of future amateur satellites operating in the 2400 MHz band. But what's he going to think of you coming over the wireless stereo speaker or wireless VCR he's just spent good money for?

The American Radio Relay League (ARRL) isn't taking this lying down. The ink was barely dry on the FCC news release when the Executive Committee met April 1 and voted to petition for reconsideration and to seek whatever injunctive relief is necessary to protect amateur interests. Last year, we filed extensive technical documentation in support of our view that consumer devices cannot responsibly be permitted to operate in amateur bands; if the Commission took any notice of this work, it is not evident from the news release nor from the comments made by Commission staff at the March 30 press conference.

If there is a bright side to this, it is that we have been looking for additional evidence to take to Congress to show that the FCC decision-making process is out of control. We've just been handed a perfect example.

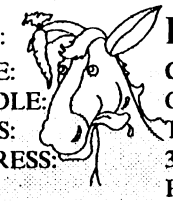
David Sumner is Executive Vice President of the ARRL.

tnx COMPLIANCE ENGINEERING and the Mobile Sixers' HETERODYNE

NEW MEMBER APPLICATIONS

CALL:	**N3FYH**
NAME:	Barry Brenner
HANDLE:	Barry
CLASS:	Technician
ADDRESS:	1317 Michael Road Meadowbrook, PA 19046
HOME PHONE:	(215) 572-6773
OCCUPATION:	Accountant
BUSINESS PHONE:	(215) 426-3333

CALL:	**N3GLU**
NAME:	Sharon Masarsky
HANDLE:	Sharon
CLASS:	Technician
ADDRESS:	15 Poe Ave Wyncote, PA 19095
HOME PHONE:	(215) 527-5238
OCCUPATION:	Sales Rep



CALL:	**KA3VLJ**
NAME:	Carolyn Popovic
HANDLE:	Carolyn
CLASS:	Technician
ADDRESS:	343 Lemonte St Phila, PA 19128
HOME PHONE:	(215) 487-9472
OCCUPATION:	Student

The GHOST of BLUE BELL TAVERN

Cover Story by Sam Kuncevich

The year was 1771. Washington withdrew his men after the battle of Germantown, on October 4 and made camp at old Pennypack Mill. After time to rest and regroup, he marched his men to Valley Forge, going by way of Plank Road, now known as Woodland Ave. Pausing at Blue Bell Tavern, Washington left a picket force of a squad of riflemen to deter the British who were marching south. The day was October 19 and the first advance British troops arrived at Blue Bell and began a search for rebel Americans and stragglers of General Washington's army. On high ground nearby, hidden in shrubs and trees, the pickets lay in wait for the moment to open fire.

And fire they did, the British quickly returned fire. In a matter of minutes it was over, and in the midst of the smoke and silence, one British officer was dead, a rifleman severely wounded. Several pickets lay dead, others wounded. The British rifleman was carried into Blue Bell and placed on a table to bind his wounds.

Being awake, the wounded rifleman looked around and said to his attendants, "I knew I would never leave this cursed place." Then he closed his eyes and breathed his last. He died upon that table.

The years went by, the British were gone, as were the pickets. And the world around Blue Bell had changed. The Battle of Blue Bell was now a matter of record. Yet, Blue Bell Tavern remained, bearing the marks of time and vandals.

Then one day, Blue Bell began to make itself known. Some people of the area reported seeing a strange figure during the night, wandering among the bushes and trees near Blue Bell. Finally someone recognized the strange attire of the night wanderer. It was a British rifleman of the colonel period. Can it be that the wounded rifleman at the Battle of Blue Bell, being loyal to his King and his cause, continues to patrol the Blue Bell Tavern in search of American rebels and Washington's stragglers? The rifleman foretold his future, he would never leave, as he had a duty to uphold.

So when next again you drive by, or walk thorough the area, look carefully among the shrubs and trees. That wispy, shadowy figure you see, just may be that wounded British rifleman. Maybe some day someone of understanding will communicate with him, and tell him that his duty has been performed, he no longer needs to bear arms, and his time has come that he may rest in peace.

1990 May Be Worst Year for Sunspots

Solar Flare Blamed for Shutdown of Hydro-Quebec Power Generation

Sunspot activity, already the most severe in more than three decades, is expected to reach its peak during 1990, according to the National Oceanic and Atmospheric Administration (NOAA).

As reported last March, the "average number of flare-ups on the sun's surface is already greater than that of 1957, the worst previous year on record."

According to NOAA's "Solar Forecaster," sunspots cause geomagnetic storms on the earth in which the earth's magnetic field fluctuates rapidly. Among the more prominent signs of this fluctuation is the exceptionally brilliant display of northern lights. Less obvious but potentially dangerous manifestations include, according

COAX FACTS

Robert Du[illegible]ul, AFA3FH

Much has been written in the trade journals, ham magazines, technical handbooks, etc., about coaxial cable and the advantages of using "Mil-Spec" grades instead of the so-called "commercial" grades. It seems to me that, based on the questions I have been asked, and comments I have overheard, another session is in order.

Transmission line is the medium by which RF energy is brought to the antenna from the transmitter and, conversely, from the antenna to the receiver.

Attenuation in the transmission line causes a reduction in the signal strength to and from the antenna. Transmission line loss can make it "difficult to impossible" to make and/or maintain contact with a weak or very weak station. Using the best transmission line suited to your situation will give optimum results, whereas using a high-loss line can be likened to running your car's engine on kerosene and mothballs!

For those who use coaxial cable, consider the following when making your purchases: RG58U, RG59/U and RG8/U were taken off the Mil-Spec list years and ago and classifies as "commercial" coax. RG8/U has not met military specifications since the fall of 1969! Individual manufacturers now produce their own versions of these cables which are not a good value sometimes. The braid (outer shield) coverage has been reduced to the bare minimum, thereby reducing the shielding capabilities. The reason for this is the high cost of copper used for the braid. Inadequate shielding results in unacceptable RF leakage causing RFI, TVI or as in one known instance, SMI-sewing machine interference, even at relatively low frequencies and power levels. When these cables are used at higher power levels and frequencies, the problem becomes even more significant.

Another aspect of the transmission line consideration is foamed dielectric coaxial cables. Manufacturers' specifications would seem to indicate that the coax with foamed insulation is better than coax with the solid dielectric. Foamed coax has a higher velocity factor and less loss when compared with the solid types. However, many of the foamed insulation coaxial cables are not impregnated with inert gas and moisture accumulates in the air bubbles. The moisture, in turn, changes the velocity factor, alters the characteristic impedance, and increases attenuation in the transmission line. Foamed insulation coaxial cable is also more susceptible to physical damage at bending points.

Still another factor for consideration is that most, although not all, of the coaxial cables of the "commercial" grades use an outer jacket of the contaminating variety. What this means is that these jackets (referred to as Type I), have a plasticizer (extender) incorporated, during the manufacturing process, to improve cable flexibility. However, the extender migrates through the shielding braid and attacks the dielectric surrounding the center conductor. The insulation deteriorates and RF losses increase. The life-span of this kind of coaxial cable is anywhere from one to two years from the date of manufacture before the losses become excessive.

Outer jackets of the non-contaminating variety are referred to as Type II jackets and do not have a plasticizer, nor do they suffer the pitfalls of the Type I jackets through ultraviolet deterioration. The types of coaxial cables using the Type I jackets commonly used by hams are RG58C/U, RG59B/U, and RG213/U (formerly called RG8A/U). RG213/U has a service life of 15-20 years and may be buried for underground installation.

With all things considered, it would be a much better investment of your time and money to use the Mil-Spec grades of coaxial cable.

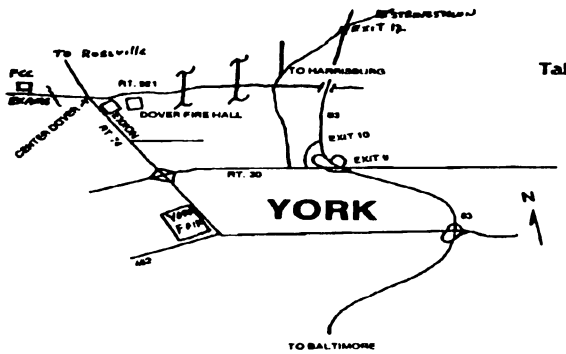
My thanks to all those who have tackled this topic previously, and whose efforts are reflected here, especially W6DDB.

tnx Mobile Sixers' HETERODYNE

3rd Annual
YORK SPRINGFEST
AMATEUR RADIO
AND
COMPUTER RADIO SHOW

March 4, 1990

DOVER FIREHALL, DOVER,PA



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Breakfast Available
No Smoking in Building
8 a.m. General Admissions
9 a.m. Registration W5YI VE Exams
10 a.m. Exams
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to the Solar Forecaster, voltage fluctuations in power lines, which may trip relays at random, or even cause direct damage to electrical and electronic equipment.

The severity and possible dangers caused *Time* magazine to make the Sun's activities its cover feature in the July 3, 1989, issue. *Time's* in-depth study said, in part:

"Powerful transient magnetic fields, generated in the upper atmosphere by the flare (one in March 1989), induced electrical currents in transmission lines and wiring... A surge of flare-induced current was blamed by HydroQuebec officials for shutting down the power company's system and blacking out parts of Montreal and the province of Quebec for as long as nine hours..."

tnx Mobile Sixers' HETERODYNE

REPEATINGS

Paul Bohlander, W3VVS, was speaker at the Quarter Century Wireless Association's (QCWA) winter luncheon meeting, held on January 13 in Bristol, PA. His topic was "The Restoration of Old Radios - with special attention to National equipment." [Hey Mr. Vice President - we haven't asked Paul to speak at a Phil-Mont meeting for a long, long time! -Ed] ..... We hear that our resident Aryan, german-language instructor and field-hockey coach, **Vikye Hopkinson,** is spending 5 weeks in the old country, visiting relatives and brushing-up for her new teaching job which starts in the spring..... **Bob Lachman, W3UQ,** was in Johns Hopkins Medical Center, in Baltimore, for a week due to low platelet count. Latest report is that he has been released.

1990 MARCH 1990

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
PHILMONT MOBILE RADIO CLUB				1	2	3
4 2M NCS AK2I 10M NCS ANYONE 75M NCS W3PWG *York Hamfest*	5 **GENERAL MEETING & LICENSE EXAMS**	6 CODE PRACTICE NET at 8 PM	7 SWAP 'N SHOP NET at 8:30 PM	8	9	10 *Absecon Hamfest*
11 2M NCS N3FTY 10M NCS ANYONE 75M NCS W3AOA	12	13 CODE PRACTICE NET at 8 PM	14 SWAP 'N SHOP NET at 8:30 PM DIRECTORS' MEETING at N3GLU & KB3IV's	15 *Andrew Jackson's Birthday 1767*	16	17 *St. Patrick's Day*
18 2M NCS ***NEEDED*** 10M NCS ANYONE 75M NCS W3RCE	19	20 CODE PRACTICE NET at 8 PM *Spring Equinox*	21 SWAP 'N SHOP NET at 8:30 PM *J. S. Bach's Birthday 1685*	22	23	24
25 2M NCS NS3Y 10M NCS ANYONE 75M NCS AK2I *Lawrenceville Hamfest*	26	27 CODE PRACTICE NET at 8 PM	28 SWAP 'N SHOP NET at 8:30 PM	29	30 *Alaska Purchase 1867*	31 *Daylight Saving Time begins tomorrow*